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Opinion from the Comptroller General

## White House Ruled Out of Bounds on NIH Cuts

## Q & A: Supercollider Accelerator No Shoo-in, Says Energy R&D Head

As Director of the Office of Energy Research in the Department of Energy, Alvin W. Trivelpiece manages a \$1.6-billion-a-year budget that finances most of this country's basic physics research, including design of the biggest research facility ever planned, the Superconducting Super Collider (SSC) particle accelerator-estimated at around \$6 billion. A former Professor of Electrical Engineering at UC Berekely, and of Physics at the University of Maryland, Trivelpiece was a Vice President of Science Applications, Inc., La Jolla, Calif., just prior to taking his DOE post early in the Reagan Administration. The following is from a conversation March 20 with SGR Editor Greenberg, transcribed and edited by SGR.

SGR. If the physics community had its way, when do you think they'd be ready to break ground and start building magnets for the SSC?

TRIVELPIECE. In their view, they're ready to go. In my view, I don't think they are. There's a certain degree of enthusiasm, a desire to get on with the job. But, as I testified to the House Appropriations Committee, hardly a week goes by in the Department that some-

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body doesn't ask if we don't have another Isabelle situation lurking here [a reference to the expensively aborted accelerator project at the Brookhaven National Laboratory].

There were certain identifiable failures of management and control and technology in the whole Isabelle process that cause a greater-than-average degree of scrutiny on this, and that is likely to persist. One is that the SSC is the biggest science project ever done, and we're coming off having had one of the major failures in the high-energy physics community. And then there's a minor artifact up in Long Island, a \$119-million concrete tunnel for which at the moment we have no pur-

SGR. The ghost of Isabelle haunts this?

TRIVELPIECE. You bet.

SGR. Is it is a very serious consideration in people's (Continued on page 3)

The Administration's ploy to stretch out the spending of the extra money that Congress bestowed last year on NIH has been declared illegal by the Comptroller General. But with the fiscal year half over, and Congress poking along indecisively on the big issues of budgets and weapons, it's by no means certain that the funds will actually be delivered to NIH's anxious applicants.

The Comptroller General's opinion was requested by NIH's staunchest friend in the Senate, Lowell Weicker (R-Conn.), who triumphantly announced its gist March 19 as the Appropriations Subcommittee he chairs opened annual hearings on the NIH budget.

Presenting the appearance of a man seething with anger. Weicker railed that federal officials who fail to abide by the Comptroller General's opinion can be held personally liable. "I'm talking about your house, your car, your bank account," he declared to an entourage of (Continued on page 2)

### In Brief

NIH sources tell SGR that the Office of Management and Budget has quietly suggested that it's willing to let NIH fund 5500 grants this year, rather than the austere 5000 that OMB suddenly decreed in December after Congress voted for 6500. But with the biomedical-research lobby more agitated and cohesive than it's ever been, NIH boosters are not disposed to compromise.

Meanwhile, with academic lobbyists beating the drums, Congress is receiving an avalanche of mail on the NIH issue. The House Appropriations Committee, which has just wound up its hearings on NIH, reports some 3500 letters against the OMB action. As for how the cutback was designed at OMB-it appears that there's no paper trail on this one. In a review of OMB's action, the Comptroller General wrote to Senator Weicker that "We understand that OMB orally directed the manner of funding."

A Congressional Budget Office review of NASA's traffic forecasts for the Space Shuttle reports that in 1977, NASA said it expected 572 flights between 1980 and 1991; in 1980, the forecast fell to 487 flights. "NASA now estimates," the CBO reports, "that the demand for the Shuttle from 1980 through 1991 will be only 165 flights, or 30 percent of the 1977 estimate." Since its beginning, in 1972, the Shuttle has cost a total of \$25.7 billion (in 1982 dollars) and the base price per flight has risen from the originally estimated \$38 million to \$87 million for 1989-91.

## The Grant Ruling: Less Than Total Victory for NIH

The opinion of Comptroller General Charles A. Bowsher on the Administration's plans to hold down NIH spending this year comes out to something short of total victory for supporters of more research grants.

Bowsher noted in his opinion that while Senate and House members voted funds for 6500 grants this year, their "conference report did not mention the total number of grants intended for support." But, the opinion continues, even if it had, "directions in committee reports, floor debates and hearings, or statements in agency budget hearings are not legally binding on an agency unless they are incorporated . . . in an appropriation act itself or in some other statute . . . . As the lump sums appropriated to the various NIH institutes say nothing about the number of grants to be funded, there is no legal requirement that the [Appropriation] committee directions be followed."

Nonetheless, Bowsher wrote, the budget-restraining device that the Administration seeks to use—multi-year funding—is impermissible, since "Without express statutory authority [which NIH does not

possess], no agency may obligate an appropriation made for the needs of a limited period of time (usually, 1 year, as in the present case) for the needs of subsequent years."

He also concluded that since the Administration plans to spend the money, its scheme does not conflict with the Impoundment Control Act of 1974.

The obvious way for NIH and its allies to avoid a repeat of this problem would be to specify grant numbers in the annual appropriations bill. But NIH is keen to hold down rather than expand specific Congressional directives for its operations.

The Comptroller General didn't wholly discount the instructions contained in appropriations reports, which are closely scanned as a kind of holy writ in relations between agencies and their Congressional money sources. He pointed out that though reports lack legal standing, "this does not mean that agencies are free to ignore the legislative history applicable to the use of appropriated funds . . . They do so at the peril of strained relations with the Congress. Thus, the executive branch has a practical, though not a legal, duty to abide by such expressions of intent."

# ... Wyngaarden Says He Awaits Word from Above

(Continued from page 1)

NIH officials headed by Director James B. Wyngaarden. "I'm putting you and the Department [of Health and Human Services] on notice," Weicker announced, as he asked Wyngaarden to pledge that he would spend all the money that Congress had voted for the current fiscal year.

Playing out his part in this mini-drama, Wyngaarden responded, "I understand you very clearly," but he also pointed out that "Until instructed otherwise, I have to follow instructions from OMB and the Department."

The main business of the hearing was supposed to be the Administration's budget proposals for next year, fiscal 1986. But the big problem before the Subcommittee was whether NIH would be able to finance the 6500 grants that Congress wants this year, or the 5000 that the Administration says is quite enough. To get to that lower figure, the Office of Management and Budget has directed NIH this year to stockpile 3 years' worth of funds for 646 grants, plus other stretch-outs, instead of following the usual practice of year-to-year financing from annual appropriations (SGR Vol. XV, No. 2).

With the crucial Senate vote on the MX scheduled for later that day, Weicker went on a good bit about the costs of missiles versus the NIH budget, "all of which deals with life." Noting that NIH was budgeted for \$5 billion of the \$60 billion that the Administration is seek-

ing for R&D next year, Weicker said, "Defense R&D has grown 102 percent since 1981, while civilian R&D has grown by 2 percent."

He lauded NIH for its sterling record of support for eventual Nobel laureates, and its contributions to health and the national economy. "But despite this long history of success," the Senator continued, "Congress has to re-educate the Administration. This year not only is the Administration attempting to stamp out growth in the FY 1985 budget," he said, "but the Administration is proposing a FY '86 budget that is \$282 million less than last year." What the Senator left out, of course, was that the White House set the figure in anticipation of Congress's customary generosity to NIH.

Softening his tone, Weicker then said to Wyngaarden, "I don't want to jinx you in the eyes of the Administration, but I think you're a damned good Director."

That opinion prevails around Washington, but, as Weicker clearly understood, the agency chieftains under this Administration have no leeway for budget-busting with supporters on Capitol Hill. In fact, Wyngaarden was fresh from a White House meeting at which the President and Chief of Staff Donald Regan had lectured agency heads against that venerable tactic. Wyngaarden noncommittally recited the numbers in the President's budget and the hearing proceeded in routine fashion.

# .. Isabelle Overruns Stir Caution in Department

(Continued from page 1) minds here?

TRIVELPIECE. Absolutely. Not only for high-energy physics, but for everything else, because even people who don't know what Isabelle is, ask, We don't have another Isabelle here, do we?

SGR. Why has Isabelle left such scars?

TRIVELPIECE. I think the original cost was something like \$275 million. Almost within 2 or 3 days after I got here [July 1981], I either had to decide not to proceed or to ask for \$60 million of additional money for a first-year fix-up on what was likely to have a cost growth that would cause Isabelle to be in excess of \$600 million. At that stage, I said no, and I said no each subsequent year, until such time as there was an adequate magnet, I wasn't prepared to proceed. Much to their credit, Brookhaven finally got their act together and did indeed produce magnets that would have been of acceptable quality.

The misfortune is that by that time, the CERN [European Center for Nuclear Research] activity had reached a stage where it wasn't clear that competition with CERN would have been a useful place for the US to spend its money. And we had Tevatron I and Tevatron II [at the Fermilab]. So, I put together 2 advisory committees. The first said you shouldn't do Isabelle if you get \$329 million [for high-energy physics]; if you get \$340 million, you should do it. That was not the kind of advice that I found useful. I found it necessary to impanel a second group. I tried to phrase the question for them in such a way that there was no escape from either do we do Isabelle or don't we do Isabelle. I tried to force a yes or no.

The answer was no. And in part the answer was no because they believed that something like going after a 20-TeV proton-proton collider was a better thing to do. I think that even if we weren't proceeding with the SSC project along the present lines, Isabelle was probably not in the best interest.

SGR. Where, then, does the SSC stand at this point? TRIVELPIECE. There's no commitment by the Department to proceed. It's being done on a year-by-year basis. The commitment on the part of the Department is to try to provide the funds by which the information can

## California Knocks SSC Rivals

California is off and running after the Superconducting Super Collider with \$500,000 in state money, an alliance of physicists and other boosters from Stanford, Caltech and the UC system, and no hesitation about knocking contending sites and recalling that politics entered into the siting of some of the biggest R&D goodies in recent years.

Prominent among California's rivals in the quest for the SSC is the Fermilab, in Illinois, which claims that a lot of money could be saved by linking the SSC to the lab's existing accelerator.

Maybe so, says a recent press release from the Stanford University News Service, but "Depending on the geology near the Fermilab, the savings achieved by using the existing facilities could be outweighed by increased tunneling costs."

In addition to that, the Stanford analysis continues, "It has been an open secret in the physics community that the Fermi National Laboratory, in the middle of Illinois, has had trouble recruiting scientists because of the location."

As for Texas, which is also a leading contender, the word from Stanford is that "MCC, the electronics industry consortium, also has had trouble in recruiting quality people to Austin, Texas."

The press release notes, too, that "Politics also enters into site selection. Fermilab is in Illinois partly because of the political influence of the late Senator Everett Dirksen. The National Aeronautics and Space Administration's manned spacecraft center was built in Houston partly because of the late Lyndon Johnson."

be generated to determine what this would cost, what it would take to do it, how big it would be. A refined conceptual design, a refined site criteria document. The pattern for decision-making has followed the desire of [former DOE] Secretary Hodel, and I have yet to have an opportunity to discuss with Secretary Herrington his views on the project. If he is persuaded, he will have to (Continued on page 4)

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## ... Local Boosterism a Factor in Site Decision

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persuade the President that this \$6-billion item is worth doing. And whether or not the President will agree, I don't know. If he does, then we'll have to take our chances with persuading the folks on the Hill.

SGR. In selecting the SSC site, how much weight will be given to the contribution that the local promoters offer to kick in?

TRIVELPIECE. Boosterism is sort of the American way. On projects, a lot of universities or regions have pooled their resources as an aspect of a proposal, and have decided to throw in a building or a number of senior faculty positions. And when those things are taken into account, the benefit to government is so large that it clearly becomes an ingredient in making a decision. But if all the other site criteria for the SSC are not met, I don't think a region could just buy it. My assumption is that we'll end up with a collection of truly excellent proposals and that the excellent proposals will, in technical terms, be more or less equivalent. And then some of these things, like the contribution by the state, region, or whatever, are going to play a significant role. I think it would be foolish to assume otherwise.

### Rushing Checks to the Bank

SGR. [Presidential Science Adviser George] Keyworth says the entire scientific community, not just the physicists, should support the Superconducter. Is there some concern about breaking of ranks or a fragmentation of attitudes?

TRIVELPIECE. I suppose there is and should be. Jay [Keyworth] is in a better position to serve as a kind of cheerleader to lead these things on. I have to be just a little bit more circumspect in terms of what I can say and do, because people begin to take their checks to the bank and try to cash them, I've discovered, if I make the

SGR. Is the SSC predicated on the assumption of substantial growth in your overall budget? Or do you plan to accommodate it mainly within the existing levels?

TRIVELPIECE. I think there will be some of each, but you don't know. You would hope that the construction funds could be made available in addition to the current operating budget. The question of whether or not then some other facility would end up being turned off in order to make the operating funds available that's going to be a tough choice for somebody to make down the road. We've turned off a lot of machines over the last 20 years.

SGR. Do you foresee any closures?

TRIVELPIECE. I would assume that somewhere

down the road it is likely that some facilities, as their usefulness diminishes, would probably not be the place that would attract the best people. The scientific community is ruthless. It votes with its feet on these things. When it comes time to make the choice [for funding various machines], it may be more obvious than it is from this distance.

SGR. There's already a lot of serious competition to get the SSC-Texas, California, Illinois, among others, want it.

TRIVELPIECE. It's easier to list by who's not interested-Rhode Island.

#### Site-Selection Process

SGR. The site-criteria document now in the works will focus on real estate, travel connections, power supply, educational and cultural facilities. There are at least 100 places around America that meet the criteria. Who de-

TRIVELPIECE. What I'm going to say is idealized, because I don't know what, in fact, will happen. My concern was that premature competition could result in the kind of warfare that would not contribute to an orderly process for deciding to go forward with this thing. So, in an attempt to try to head it off, I read the Congressional hearing records from the period [mid-1960s] when the decision on Fermilab was made. I interviewed most of the people who were involved in thatformer Commissioners [of the Atomic Energy Commission], and a lot of others, to see what they thought about how the Fermilab selection went, what the pitfalls were, how they would do it differently, if they had a chance to do it all over again.

From that, and from several other sources, it occurred to me that the process that was employed then could be used in some respects, provided it was updated to reflect the fact that we're dealing with a cabinet agency and not the Atomic Energy Commission and that there's no longer a [Congressional] Joint Committee for Atomic Energy to play the same kind of control role. And, in the meantime, there's now a National Academy of Engineering, which didn't exist when the Fermilab selection was made. [The Fermilab site decision followed a nationwide competition, blue-ribbon reviews and recommendations, and acrimonious accusations of a political deal between President Lyndon Johnson and Republican Senator Everett Dirksen, of Illinois, when a site in that state was chosen].

Let's say we receive 100 proposals. Then suppose in an internal review by the Department, 70 of them sim-

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# ... "I Can Imagine DOE Secretary Saying No"

(Continued from page 4)

ply don't meet the prima facie requirements of the sitecriteria document. We can exclude those without further consideration. For the remaining 30, what I've set in place is a process to take them to the National Academies of Sciences and Engineering, and the Presidents of the two Academies are to appoint a blue-ribbon panel of individuals of national reputations to review these and to return to the Department no more than a handful. An unspecified number, but a few—5, 6, 7—that they believe are excellent in every respect and exceed the sitecriteria document stipulations in an appropriate way.

At that point, the process becomes unclear. But, in the end, with a cabinet agency, the Secretary is always the eventual selection officer for a site-selection.

SGR. When do you think this process will be completed?

TRIVELPIECE. It's not at all clear at this point.

SGR. When will the Academy committee come into being?

TRIVELPIECE. I really can't answer that. We first have to get through the point where the Secretary agrees to proceed with this whole thing.

### Secretary Could Balk

SGR. But the way things are moving along now, isn't everything moving toward a "go" decision? Is it at all conceivable that someone along the line will say no, and that the decision could stick?

TRIVELPIECE. Yes.

SGR. Play out that scenario.

TRIVELPIECE. I can imagine a Secretary [of DOE] saying, No, I will not carry forward to the President your proposal because I don't believe it contains the necessary demonstration that this can be done within the cost and schedule that you suggest. He finds it deficient, defective in some way.

SGR. That could delay it while you rework the estimates, but not necessarily kill it.

TRIVELPIECE. That's one possibility. The other is that the costs, after all the engineering design and so on, turn out to be such that the Secretary would say, Sorry, I refuse to go forward to the President. Now, outside forces can cause Secretaries to things that they're perhaps not interested in. But in this system, I've noticed that Secretaries of Defense, Energy, or whatever have a certain amount of line authority in running their agency. So, I think that, as a necessary condition, it is incumbent on me or whoever to persuade the Secretary to proceed.

And then it takes the President and the Director of OMB to agree.

SGR. Is the SSC project moving at a fast or slow pace? TRIVELPIECE. The budget we're asking for this year reflects a continuation of current services. It's not an acceleration of some the preparatory engineering work that would be needed to maintain the time schedule that the high-energy physics community believes, optimistically, could succeed in getting this thing on line. It's \$20 million this year. What that won't do is permit the kind of magnet work that had been assumed necessary in order to come up with the magnet information needed for a conceptual design.

Things have clearly been delayed by the freezing at current services of the SSC activities this year. Whether that is a delay of 1 year or more, I don't know. The reference design studies and other studies indicate that once you cut the whole effort loose, it's going to take like 10 years to get this thing done. At the moment, we just tread water for 1 year, based on the current budget circumstances.

SGR. When do you tell these various groups around the country that it's application time for the sites they're offering?

TRIVELPIECE. I don't know if I can give an answer. I would certainly hope that within 2 years, it would be possible to have assembled the information necessary to make the case at least to the Secretary for his consideration as to whether or not to take it to the President.

### **Fusion Cut for Second Year**

SGR. Fusion seems to be getting whacked harder than anything else here.

TRIVELPIECE. High-energy physics took about the same dollar cut—about \$45 million.

SGR. But isn't a lot of new construction finished in the high-energy physics program?

TRIVELPIECE. Certainly, we took advantage of the construction "roll-off." The people who work in that field were under the hope and expectation that they would get to retain all the construction money as operating money. Whether there had been a budget crunch or not, that may or may not have come to pass in the way they would like to see it happen. The fusion program hurts because Congress cut it by \$47 million last year. That was 10 percent, and this year the Administration is taking off 10 percent. But to that extent, it is essentially the formula that was applied to most of the other gov-

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# ... Fusion Program Down 25 Percent in Two Years

(Continued from page 5)

ernment programs. There tended to be a freeze for science programs and there tended to be a freeze minus 10 percent for the energy programs and fusion was hit no worse than other energy programs.

It's difficult because of the fact that it's a 2-year running 10-percent cut. Last year it was possible to slow down some of the things in construction activities and a few other things. But performing that act 2 years in a row is difficult. In a purchasing power reduction, it comes out to 25 to 30 percent, I'd guess.

SGR. What does that mean in terms of the fast-paced program that's called for in the Fusion Energy Act of 1980?

TRIVELPIECE. The Act, like many authorization bills, stipulates a certain degree of specific performance, but contains in it, as a bottom line, "subject to the availability of appropriated funds." Nearly the entire Congress voted in favor of the authorization bill, but our ability to persuade a few members on the Appropriations Committees to support it with the corresponding funds has not been all that successful.

With oil at \$25 a barrel and [uranium] yellow cake at \$15 a pound, it's hard to make the claim that there's a need for a compulsive approach for making a fusion reactor by the year 2000. It's technically possible—it's a fund-limited program—it could be done, but there is now no sense of urgency to do it. The pace at which fusion proceeds is going to depend a little bit on what happens in the rest of the world—the economics and so on. But we're trying to preserve the core of people, the investment and the activity, and end up with a collection of answers so the United States can decide whether or not it would like to pursue fusion as an energy option or discovers that it won't work, whatever the outcome might be.

#### International Collaboration

SGR. The Academy's recent report on fusion [Cooperation and Competition on the Path to Fusion Energy, produced by a National Academy of Sciences panel chaired by Joseph P. Gavin—SGR Vol. XIV, No. 20] recommended more international collaboration. Is that in the works?

TRIVELPIECE. One of the myths is that you can do more with less with international collaboration. If you're talking about building multi-billion dollar objects, then if 2 countries simultaneously build the same object to get the same result at the same time, that's stupid. The question isn't whether everybody can put their money on the barrel head and build it together, but

can you come up with a worldwide plan whereby Country A agrees to build Thing 1 and Country B agrees to build Thing 2, and exchange of information and people and so on. Then it makes great sense and we ought to do it.

But then you get down in the retail level of things that we're already doing, and, in fact, there is good cooperation and the natural cooperation that science and technology seems to engender in people has resulted in good exchanges of information and people. In some cases, it's formal protocols, in others it's informal arrangements. But the admonition that you ought to go off and get a few bucks from overseas in order to reduce the burden on the US taxpayers—it's clever and it's hard to defend against, but, in fact, it's a bit naive. What we're doing through the follow-on to the Versailles-Williamsburg-London and [forthcoming] Bonn economic summit process is a realistic way to approach that.

### **Cutting Red Tape**

We're trying to deal with what I call the administrative problems. There's a whole collection of things that make international collaboration difficult. For example, customs regulations: Someone wants to bring personal property in as part of an accelerator from another country, then should you pay customs duty on it if it's scientific and it's for international collaboration? Well, it turns out that the regulations are that at the end of 3 years you either have to send it home or pay customs duty on it, which is silly. If, through this head-of-state process, you can point out that this is a legitimate area of impediment to useful international collaboration, and get them to all agree to do something about it, then perhaps the laws and regulations can be changed. Visas, spousal working permits-there's just a whole collection of administrative impediments to successful international collaboration.

SGR. Your budget is a central target for lobbying Congress for new research buildings. What's been happening since Columbia and Catholic got their money for buildings [through Congressional lobbying in 1983—SGR Vol. XIII, No. 10]?

TRIVELPIECE. Not much here, but what's interesting is what seems to be happening within the states. Governor Babbitt [of Arizona] was recently telling us that the competition for facilities in academic institutions is more intense within states than it is in Washington. As far as DOE is concerned, Senator Hatfield [R-Oregon, Chairman of the Senate Appropriations Committee and its Subcommittee on Energy and Water

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# NSF Draws More Fire for Cutting Values Studies

As a major fount of the science money that hometown politics now cherishes, the National Science Foundation is golden this year on Capitol Hill. But it took a few lumps last month as its leader tried to explain why he had eliminated NSF's piddling \$1-million program called Ethical Values in Science and Technology (EVIST).

The real reason, one may guess, is that NSF Director Erich Bloch, an engineer out of IBM, thinks the million can be better spent on hard science and engineering than on the handwringing inquiries financed by EVIST, among which are ventures titled "Moral responsibilities and moral decisions in discovering and controlling occupational health hazards," "Values in use of scientific evidence in Congressional hearings on waste disposal," and "Safety and sensitivity: ethical issues in identifying and protecting high-risk persons in the workplace."

With social-science lobbyists on Capitol Hill depicting the EVIST cut as the precursor of a new Dark Age, Bloch stayed away from the subject as he chatted amiably back and forth with the Senators at a budget hearing of the Commerce Subcommittee on Science, Technology, and Space.

But then, just as it looked as though Bloch might get away, Senator Albert Gore (D-Tenn.) arrived late for the hearing. Taking his turn at questioning, Gore described himself as "dumbfounded" by the demise of EVIST, an action which he said is "opposed unanimously by the scientific community." The march of science, Gore said, requires the risk-assessment work and other studies sponsored by EVIST.

Bloch tried to squirm away by declaring admiration for the goals and achievements of EVIST, which are so important, he said, that the work done by EVIST would be carried on in what is expected to be the more supportive surroundings of NSF's behavioral and social sciences apparatus. EVIST was a "narrowly focused program" in its free-standing state, he insisted, as he depicted himself as shoulder-to-shoulder with Gore in supporting the program.

Gore, obviously unpersuaded, declared that EVIST is needed because, fearful of new scientific applications, "Americans are turning against science."

The issue was then referred to the next witness, Frank Press, President of the National Academy of Sciences. How would you have handled this? asked Chairman Slade Gorton (R-Wash.). Press collected his thoughts for a moment or two and then replied:

"Let me say this, there's no question in my mind about the value of having thoughtful individuals addressing these difficult questions of ethics and values in science. My own academy's programs in this area are expanding very rapidly. And I suspect that in the years ahead they may be a most significant growth area. We invited Senator Gore to give a keynote address a few weeks ago dealing with these matters. So, I agree with him about the importance of this area.

"I myself have not evaluated the specific program within the National Science Foundation. And so I can't make a specific recommendation with respect to the EVIST program," Press continued. "But if I were the Director of the Foundation. I think I would have done the following: I would have transferred the program into the social sciences directorate, where the philosophy of science, the history of science also reside . . . but I would have also instructed that directorate as follows: I want this program to grow without limits as long as the quality and the impact can justify it, because there's no question about its importance to the country. And then I would have that directorate bring in the best outsider advisers and evaluators from all walks of life-religious, legal, scientists, engineers, industrial people, and have them evaluate and discuss these programs, and make recommendations about how rapidly such programs should grow."

Gorton expressed his appreciation for that suggestion. Bloch, sitting near the witness during this rendition, did not offer the appearance of a man who had just heard a great idea.

### Energy

(Continued from page 6)

Development] inserted something like a \$3 million item in the energy research budget last year to do the preliminary design work in expectation of a larger sum being devoted to the University of Oregon. We didn't ask for any such funds [for FY 1986]. Whether the Congress decides to include it [in budgets now in preparation] is their business. We didn't ask for funds for any of the projects that had been Congressional add-ons. [Former] Secretary Hodel had decided that rather than trying to make a selection from among them, it was simply easier to say that we shouldn't do any of them.

SGR. Do you see any further staff reductions in the DOE labs?

TRIVELPIECE. Argonne is facing a staff reduction that could be in excess of 1000 people out of its 4000. It's the natural fallout of the fact that the Clinch River Breeder project was stopped, and both Argonne east and Argonne west, in Idaho, were heavily involved in that. We're certainly looking at it, and the Illinois [Congressional] delegation is giving very sincere interest to this problem and trying to help us in our decision-making process.

The [DOE] defense labs have gone up in staffing about 10 percent and the energy research labs have gone down about the same.

# Rescue Mounted for Keyworth Steel R&D Program

A House Subcommittee has moved to salvage a pet industrial research project of White House Science Adviser George A. Keyworth II that failed to make it past his money-minding neighbors at the Office of Management and Budget.

The project, so closely associated with Keyworth that industry executives refer to it as the "Keyworth Initiative," would team several major national laboratories and the steel industry in collaborative research programs, with Washington footing most of the bill.

Last fall, a budget recommended by a joint industry-government steering committee called for spending \$14 million in the first year of the program, with the American Iron and Steel Institute (AISI) and individual companies together providing \$1.5 million and the federal government all the rest.

The AISI-industry money was to pay for 15 industry researchers to work alongside federal staffers at the Argonne and Oak Ridge National Laboratories and the National Bureau of Standards. In expectation of a go-ahead, Argonne, which is facing hard times, selected 12 staffers last December for the project.

"Enthusiasm on the part of the government and industry scientists was high," James H. Leonard, Bethlehem Steel's Vice President for Technology, told the House Science and Technology Subcommittee on Energy Development and Applications March 6. He traced the genesis of the project to efforts that Keyworth had initiated for getting some industrial mileage out of the costly national laboratories system.

"The proposed research program was submitted by the Office of Science and Technology Policy to the Office of Management and Budget for approval in December with the strong endorsement of Argonne, NBS, and AISI," Leonard stated. But OMB didn't approve.

The Subcommittee was more sympathetic. In marking up the energy bill authorization bill on March 20, it wrote in \$6 million for the Keyworth Initiative. But final approval is still a long way off. The Subcommittee action must make it through the House and be matched in the Senate. Then there's the matter of finding the money in an already-tight Department of Energy budget.

Keyworth was not asked to testify on the program, nor was he involved in the rescue effort. His office says he's been heavily occupied with other things, including a Star Wars sales trip to Europe last month. But in various public talks over the past year, he has proudly referred to the government-industry steel research program as a promising development for the future of the national labs, which he has often criticized as out of touch with the country's economic problems.

An irony of the Keyworth Initiative is that it bears a close resemblance to a government-industry effort formulated during the tenure of his immediate predecessor, President Carter's Science Adviser, Frank Press, now President of the National Academy of Sciences. Late in Carter's term, Press suggested creation of a Cooperative Auto Research Program, which was to involve government, academe, and industry in generic research for the auto industry.

CARP, as the Press initiative was known, was still in a formative stage when the Reagan Administration, spouting its anti-government line, took office, and promptly abolished the program as ideologically inappropriate.

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